

Notice of Allowability

Application No.

10/576,144

Examiner

Thuan D. Dang

Applicant(s)

DELLEDONNE ET AL.

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application for a patent filed on 4/18/2006.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20071225</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>8/8/06</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Umbach on 12/21/2007.

The application has been amended as follows:

On lines 3 and 4 of claim 9, “, more preferably from 0.2 to 1.3 and even more preferably from 0.4 to 0.8” has been deleted.

On lines 2 and 3 of claim 10, “, preferably from 70 to 100°C” has been deleted.

On line 3 of claim 11, after “from”, ---the group consisting of--- has been inserted.

On lines 4 and 5 of claim 14, “, preferably from 1/1,000 to 1/150,000, more preferably from 1/5,000 to 1/50,000” has been deleted.

On lines 3 and 4 of claim 15, “, more preferably from 10 to 80% by weight” has been deleted.

On lines 2 and 3 of claim 16, “, preferably from 5°C to 60°C” has been deleted.

On line 3 of claim 17, “preferably” has been changed to ---or---.

On lines 4 and 5, “, preferably from 0.1 to 3 Mpa” has been deleted.

The following is an examiner's statement of reasons for allowance: the prior art of record does not disclose or render obvious a process, as called for in claims 1, for production of 1-

Art Unit: 1797

octene from butadiene by a step of bis-hydroisomerization of butadiene and a step of partial catalytic hydrogenation of produced 1,7-octadiene. Each of step is carried out in presence of specific catalysts as called for in the claim, namely step 1 is also carried out in the presence of an aprotic polar solvent which is selected from disubstituted cyclic ureas. The closest art of record - Pittman, Jr. et al. (4,243,829) - discloses a process of production of 1,7-octadiene from butadiene in the presence of a catalyst and in a solvent (see the abstract). However, Pittman, Jr. does not disclose using an urea solvent, namely disubstituted cyclic ureas, for the step of bis-hydrodimerization of butadiene (see the entire patent for details). Further, one having ordinary skill in the art who studies the specification, namely examples would recognize that applicants are the first to discover ureas used as the solvent for the process yield higher conversion of butadiene as well as higher selectivity of 1,7-octadiene (see tables).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan D. Dang whose telephone number is 571-272-1445. The examiner can normally be reached on Mon-Thu.

Art Unit: 1797

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thuan D. Dang /
Primary Examiner
Art Unit 1797

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